the distal end of the mask, the collapse of ring **18** is operative upon the formed distal-end opening **43** of tube **26** to somewhat flatten the opening **43**, into a generally shovel-shaped distal lip feature which merges smoothly into the adjacent upwardly dished double-wall. shape **18'** shown in the longitudinal mid-section of FIG. **9**.

It will be appreciated that the GLM device described thus far has an airway tube **11** that is of larger diameter than the evacuation tube **23**; in this circumstance, the airway tube **11** is large enough to accommodate guided insertion of an endotracheal tube. The tubes **11, 23** enter the described laryngeal mask **10** in side-by-side relation and are preferably adhesively secured to each other in this side-by-side relation, and along their full longitudinal extent, in order to provide a measure of torsional resistance against twisting, thereby aiding a medically qualified person in quickly and correctly installing a fully deflated-GLM in a patient, with assurance that, upon inflation of ring **18** and the back-cushion panel **25**, an exclusive and sealed airway connection will be established to the laryngeal inlet, via lumen **14** and from the airway tube **11**; concurrently, a similarly exclusive evacuation connection is established to the upper sphinctral region of the oesophagus, via the distal-end opening **43** of tube **26**, through the evacuation tube **23**, and to suitable waste-collection means (not shown) external to the patient.

More specifically as to insertion of the fully deflated GLM device in a patient, it will be understood that a range of GLM sizes is available from which to select a sufficiently correct size for the patient. Deflation is accomplished via external means (not shown) and via check-valve means **21** to hold the deflated condition wherein the dome shape of body member **13** rises from within the dished peripheral lip **18'** of the collapsed ring **18**. A skilled operator is quickly able to develop the desired appearance of the GLM in its deflated state; but for a uniformly correct deflated shaping, it is recommended to use a forming tool as described in U.S. Pat. No. 5,711,293.

When correctly shaped and in its deflated condition, and at the distal end of the GLM, the opening **43** will have been flattened, and this distal end merges with the peripheral lip **18'** of the collapsed ring **18**. Noting that the entire distal half of the mask is of relatively soft material, stiffened only by indicated adhesive connection, the distal end projects distally and at its upwardly flared merge with lip **18'**, for low acute-angle incidence to the posterior arcuate profile of the patient's throat passage. That being the case, a medical technician need only make sure that upon inserting the mask via the patient's mouth and throat, the flattened distal end rides the outer (posterior) arcuate contour of the patient's airway, in that the softly flexible nature of the distally projecting and somewhat flattened distal end will be flexibly self-adapting to local irregularities (if any) in the course of passage into the pharynx; final insertional location is noted by an increase in encountered resistance, upon distal-end engagement of the GLM with the upper sphinctral region of the oesophagus. At this juncture, inflation air supplied via line **19** and retained by check-valve means **21** establishes (i) the described seal of ring **18** to the laryngeal inlet, (ii) back cushion (panel **25**) contact with the back wall of the pharynx, and (iii) full opening of the evacuation tube **26** for maximum accommodation of a possible gastric discharge from the oesophagus.

Beyond what has been described, FIG. **10** illustrates at phantom outline **26'** that the flexible length of the re-entrant tube **26** may be of even greater length than the approximately half-mask length shown by the solid lines of FIG. **5**. In that event, arcuate stiffener ridges as described at **42** will be preferred, as long as lateral support is needed to prevent side-wall collapse of the extended tube **26'**, in the inflated condition of the mask, i.e., including inflation of back-cushion panel **25**.

FIGS. **10** to **12** illustrate another GLM embodiment wherein an airway tube **50** and an evacuation tube **51** are of equal size, adhered (as suggested at **52**) to each other in side-by-side relation for torsionally resistant and symmetrically positioned entry into corresponding side-by-side ports **53, 54** of the dome like moulded backing plate **55** or body member of FIGS. **11** and **12**. The backing plate **55** may be similar to plate **13** of FIG. **4**, except that in FIG. **11** the somewhat helically arcuate conduit path from the inserted distal end of evacuation tube **51** to the point **56** of softly compliant re-entrant tube (**26**) connection is provided by an integral passage formation **57** of the backing plate **55**. At point **56** in FIG. **11**, the formation **57** is seen to be in the central vertical plane **58** of symmetry of the bowl of backing plate **55** and in alignment for accepted proximal-end insertional accommodation of a re-entrant tube **26** of thin-walled material to which backing plate **55** is to be assembled, with edges of the straight slot **38'** supporting tube **26** in the manner already described. Also integrally formed with backing plate **55** is an inlet-connection counterbore for coupled connection of airway tube **50** to the laryngeally exposed side of the mask. Features in FIG. **10**, such as the back-cushion panel **25**, the inflatable ring **18**, and the adhesively bonded connection **39** of panel **25** to tube **26** are all as previously described.

It will be understood that the inside-out technique described in connection with FIGS. **5** and **6** for initially moulding and then inverting the skirt of the moulded product, is but one illustration of a way to create the mask and its inflatable ring, in which case the flexible drainage conduit does not get inverted. That being the case, the reinforcement ribs **42** are initially formed portions of the outer surface of the moulded product. On the other hand, another technique for forming the mask with its inflatable ring, involves moulding the mask bowl integrally with an elliptically configured product as shown in FIG. **13**, wherein completion of inflatable-ring (**18**) integrity requires only an adhesively bonded completion of the ring peripherally around the inner substantially elliptical profile, where backing-plate (**13**) connection is also adhesively secured. In that case, the drainage tube **26** is integrally-moulded with the non-invertible ring (**18**), so that an inversion of tube **26** is necessary, to have it project re-entrantly, in the proximal direction, and the moulded product which is to become inflatable ring **18** must be cut away as at **40**, to permit inverted tube **26** to "pass through" the inflatable ring, in order to develop a relationship which is suggested by FIG. **5**. Of course, if tube **26** is to be inverted, the reinforcement ribs **42** are preferably integrally formed as radially inward rib reinforcements or discontinuities in the moulded bore of tube **26**. Inversion of tube **26** places these rib reinforcements on the outer surface of tube **26**, so that the bore of tube **26** is inherently smooth.

What is claimed is:

1. A laryngeal mask construction for concurrent airway service to a patient's laryngeal inlet and for removal of gastric-discharge products from the oesophagus, said construction comprising:

an inflatable ring in the form of a generally elliptical annulus having an outer periphery configured for continuously sealed adaptation to the laryngeal inlet, said ring extending longitudinally between proximal and distal ends and having an inflation port connection at its

proximal end, said ring being a moulded product of relatively thin and softly pliant elastomeric material, said ring including within the inner periphery of said annulus an apertured panel or membrane establishing separation between a pharyngeal-chamber side and a laryngeal-chamber side, said ring further integrally including at its distal end a distally open tubular conduit for operative engagement and communication with the oesophageal inlet, said tubular conduit extending from its distally open end and in the proximal direction adjacent said panel and on the pharyngeal side of said panel;

a domed backing-plate member of relatively stiff elastomeric material and having a concave side which terminates in a generally elliptical footing in a geometric plane and in sealed engagement with said panel at the inner periphery of said annulus, said backing-plate member having an airway-tube connecting formation on a proximally directional axis that is at an acute angle with said geometric plane, said backing-plate member providing stability to the inner periphery of said annulus and directional stability for said tubular conduit;

an airway tube connected to said connecting formation; and

a gastric-discharge tube connected to said tubular conduit.

2. The mask construction of claim **1**, in which said airway tube and said gastric-discharge tube are bonded to each other in side-by-side relation.

3. The mask construction of claim **1**, in which said tubular conduit extends proximally to approximately 50 percent of the longitudinal extent of said inflatable ring.

4. The mask construction of claim **1**, in which said tubular conduit extends proximally to at least 50 percent of the longitudinal extent of said inflatable ring.

5. The mask construction of claim **1**, in which said backing-plate member is formed for directionally guiding relation to said tubular conduit, to determine a straight proximal direction of said tubular conduit for substantially the distal half of the longitudinal extent of said mask.

6. The mask construction of claim **5**, in which said backing-plate member is further formed for tubular-conduit guidance on generally a helical arc to a location of gastric-discharge tube entry to said mask alongside said airway tube.

7. The mask construction of claim **1**, further including an inflatable back cushion comprising a panel of softly compliant elastomeric material bonded peripherally to the pharyngeal-chamber side of said annulus and extending over said tubular conduit.

8. The mask construction of claim **7**, in which said back-cushion panel is peripherally bonded to said tubular conduit.

9. The mask construction of claim **8**, in which said back-cushion bond to said tubular conduit extends for substantially the distal half of the longitudinal extent of said inflatable ring.

10. The mask construction of claim **8**, in which (a) a first arcuate circumferential fraction of said tubular conduit is connected to said backing-plate member, (b) the bond of said back cushion to said tubular conduit is angularly spaced from and generally opposite the connection of said tubular conduit to said backing-plate member, the bond to said back cushion being over a second arcuate circumferential fraction of said tubular conduit, (c) the arcuate circumferential extent by which said angular tubular-member connections are made to said backing-plate member and to said back cushion being reinforced with circumferentially arcuate stiffener formations.

11. The mask construction of claim **10**, in which said stiffener formations are arcuate ribs in axially spaced array.

12. The mask construction of claim **11**, in which said ribs project radially outward of said tubular conduit.

13. A laryngeal mask construction for concurrent airway service to a patient's laryngeal inlet and for removal of gastric-discharge products from the oesophagus, said construction comprising:

an inflatable/deflatable ring in the form of a generally elliptical annulus having an outer periphery configured for continuously sealed adaptation to the laryngeal inlet, said ring being a moulded product of relatively thin and softly pliant elastomeric material, said ring integrally including at its distal end a distally open tubular conduit through a distal opening in said ring, said distally open tubular conduit being for operative engagement and communication with the oesophageal inlet;

a backing-plate member of relatively stiff elastomeric material having a concave front side which is adapted to face the laryngeal inlet and which terminates in an elliptical footing in a geometric plane and in peripherally sealed engagement with the inner periphery of said inflatable/deflatable ring, said backing-plate member having an airway-tube connecting formation on a proximally directional axis that is at an acute angle with said geometric plane, said backing-plate member having a lumen for airway-tube communication with the laryngeal inlet, and said backing-plate member providing stability to the inner periphery of said annulus and proximally directed directional stability for said tubular conduit;

an airway tube connected to said connecting formation; and

a gastric-discharge tube connected to said tubular conduit.